

ELECTRONIC SYSTEMS LEVEL I & II Demonstration

OVERVIEW: TSA participants in the Electronics Systems - Demonstration event are required to build a product utilizing electronics and answer questions regarding electronic theory and application.

- I. **PURPOSE**
The purpose of the Electronic Systems - Demonstration event is to give TSA members an opportunity to demonstrate their knowledge of electronics by building an electronics product and answering questions regarding electronic theory and application.
- II. **SCOPE OF THE CONTEST -**
 - A. This contest consists of two parts. The first part consists of a written examination regarding electronic theory and application.
 - B. The second part consists of building an electronics product from a kit, within a specified time period.
- III. **ELIGIBILITY FOR ENTRY**
 - A. Must be current TSA state and national member and registered State Conference participant.
 - B. This is an individual event. Maximum of eight participants per level, per chapter.
- IV. **LIMITATIONS**
 - A. Electronics kits, spare parts list, and description will be provided to the participants.
 - B. Participants will be required to complete the project within a specific time period.
- V. **SPECIFIC REGULATIONS**
 - A. The written examination will be conducted within a specified time period. The top twelve contestants, based on test scores, will be eligible for the final hands-on competition.
 - B. Contestants will be given a kit of electronics components and will be required to construct a device described by the Event coordinator.
 - C. Each contestant will be given a specified time period to complete the project.
 - D. The completed project will function according to the schematics provided in the kit.
 - E. Contestants will be judged on completeness of the project, neatness, and efficiency of operation of the device constructed.
 - F. Judges will evaluate the student's method of construction, soldering, connecting components, and overall quality of work performed.
 - G. Overall scores on the written examination and the demonstration project will determine the winners.

VI. PROCEDURES

A. Registration

1. Event participants must register for the event in accordance with procedures established for the conference.
2. The Electronic Systems - Demonstration entry may be picked up at the conclusion of the conference.

B. Competition

1. A written examination will be given to all Electronic Systems - Demonstration contestants. Top twelve scores will determine finalists.
2. Contestants will be given an electronics kit to complete within a specified time period.

VII. REQUIRED EVENT PERSONNEL AND EQUIPMENT

A. Personnel

1. Event Consultant.
2. Judges, three.

B. Equipment/Supplies

1. Official rating forms.
2. Event guidelines for each judge.
3. Marking pens for judges.
4. Display tables for electronic systems - demonstration kits.
5. Access to 110 VAC outlets.

VIII. CRITERIA FOR JUDGING

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|----|------------------------------|-----------|
| A. | Overall Quality of Work..... | 30 points |
| B. | Accuracy of Work..... | 20 points |
| C. | Completeness of Project..... | 20 points |
| D. | Methods of Construction..... | 20 points |
| E. | Neatness of Work | 10 points |

Total..... 100 points maximum

Rules Violation..... Minus 20 points

A composite score from the written test and the judging criteria above will determine the winners.